

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



INTERNATIONAL BUREAU OF PATENT COOPERATION
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P.O. Box 17, Wellington, New Zealand

(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049664 A1

(51) International Patent Classification⁷: C08F 10/02

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(21) International Application Number:
PCT/EP2004/012108

(22) International Filing Date: 27 October 2004 (27.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
103 51 262.4 31 October 2003 (31.10.2003) DE
60/525,268 25 November 2003 (25.11.2003) US

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, GR, GU, HT, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

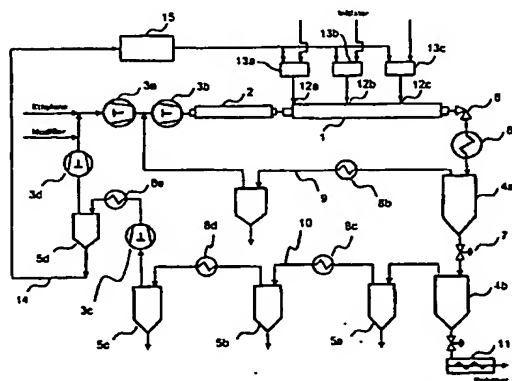
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: CONTINUOUS PREPARATION OF ETHYLENE HOMOPOLYMERS OR COPOLYMERS



(57) Abstract: The invention relates to a process for the continuous preparation of ethylene homopolymers or copolymers in the presence of free-radical polymerization initiators and, if desired, molecular weight regulators at from 120°C to 350°C and pressures in the range from 100 to 4000 bar, in which the polymer is separated from unpolymerized ethylene in a high-pressure stage at a pressure of from 100 to 500 bar and at least one low-pressure stage at a pressure of from 1 to 100 bar and the ethylene separated off in the high-pressure stage is separated from remaining monomeric, oligomeric and/or polymeric constituents and recirculated to the inlet of the tube reactor in a high-pressure circuit and the ethylene separated off in the low-pressure stage is separated from remaining monomeric, oligomeric and/or polymeric constituents and recirculated to the inlet of the tube reactor in a low-pressure circuit. The initiator is used as a solution in an isoparaffinic solvent having a boiling point of not more than 160°C and the solvent is separated from the other monomeric, oligomeric and/or polymeric constituents in the low-pressure circuit. The solvent is then, if appropriate after being admixed with fresh solvent, reused for dissolving initiator.

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